2 in the claims can be found at least in the sequence listing as filed. No new matter has been added.

SUMMARY

If a telephone conversation with Applicants' Agent would expedite the prosecution of the above-identified application, the examiner is urged to call Applicants' Agent at (617) 227-7400.

Respectfully submitted,

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APPENDIX A

42. A method for treating a subject with a tumor, comprising:

(a) obtaining tumor cells from the subject;

(b) modifying the tumor cells to express B7-2, and

(c) administering the tumor cells to the subject.

43. The method of claim 42 wherein tumor cells are modified by transfection with a nucleic acid encoding B7-2 in a form suitable for expression of B7-2 .

46. A method of treating a subject with a tumor, comprising:

(a) obtaining tumor cells from the subject;

(b) transfecting the tumor cells with a nucleic acid encoding B7-2 in a form suitable for expression of B7-2 such that B7-2 is expressed by the tumor cell; and

(c) administering the tumor cells to the subject.

47. The method of claim 46 wherein the tumor cells are further transfected with a nucleic acid encoding B7.

48. The method of claim 46 wherein the tumor cells are further transfected with at least one nucleic acid encoding at least one MHC class II α chain protein and at least one MHC class II β chain protein in a form suitable for expression of the MHC class II α chain protein(s) and the MHC class II β chain protein(s).

49. The method of claim 46 wherein the tumor cells are further transfected with at least one nucleic acid encoding at least one MHC class I α chain protein in a form suitable for expression of the MHC class I protein(s).

50. The method of claim 49 wherein the tumor cells are further transfected with a nucleic acid encoding a β-2 microglobulin protein in a form suitable for expression of the β-2 microglobulin protein.

51. The method of claim 46 wherein expression of an MHC class II associated protein, the invariant chain, is inhibited in the tumor cells.

52. The method of claim 51 wherein expression of the invariant chain is inhibited in the tumor cells by transfection of the tumor cell with a nucleic acid which is antisense to a regulatory or a coding region of the invariant chain gene.

53. The method of claim 46 wherein the tumor is a sarcoma.

54. The method of claim 46 wherein the tumor is a lymphoma.

55. The method of claim 46 wherein the tumor is selected from a group consisting of a melanoma, a neuroblastoma, a leukemia and a carcinoma.

56. The method of claim 46 wherein the tumor cells are administered by intravenous injection.

57. The method of claim 46 wherein the tumor cells are administered by a route selected from a group consisting of intramuscular injection, intraperitoneal injection and subcutaneous injection.

58. A method for preventing or treating metastatic spread of a tumor or preventing or treating recurrence of a tumor in a subject, comprising:

(a) obtaining tumor cells from the subject;

(b) transfecting the tumor cells with a nucleic acid encoding B7-2 in a form suitable for expression of B7-2; and

(c) administering the tumor cells to the subject.

59. The method of claim 58 wherein the tumor cells are further transfected with a nucleic acid encoding B7.

60. A method of inducing an anti-tumor response by CD4+ T lymphocytes in a subject with a tumor, comprising:

(a) obtaining tumor cells from the subject;

(b) transfecting the tumor cells with at least one nucleic acid comprising DNA encoding:

(i) B7-2,

(ii) an MHC class II α chain protein, and

(iii) an MHC class II β chain protein,

wherein the nucleic acid is in a form suitable for expression of B7-2, the MHC class II α chain protein and the MHC class II β chain protein; and

(c) administering the tumor cells to the subject.

61. A method for treating a subject with a tumor comprising modifying tumor cells *in vivo* to express a T cell costimulatory molecule, B7-2.

62. The method of claim 61 wherein tumor cells are modified *in vivo* by delivering to the subject *in vivo* a nucleic acid encoding B7-2 in a form suitable for expression of B7-2.

63. The method of claim 61 wherein the nucleic acid is delivered to the subject *in vivo* by injection of the nucleic acid in an appropriate vehicle into the tumor.

64. A method for treating a subject with a tumor, comprising:

(a) obtaining tumor cells and T lymphocytes from the subject;

(b) culturing the T lymphocytes from the subject *in vitro* with the tumor cells from the subject and with a stimulatory form of B7-2; and

(c) administering the T lymphocytes to the subject.

65. The method of claim 46, wherein B7-2 comprises the amino acid sequence shown in SEQ ID NO:2.

66. The method of claim 46, wherein the nucleic acid encoding B7-2 molecule the nucleic sequence shown in SEQ ID NO:1.

67. The method of claim 58, wherein B7-2 molecule the amino acid sequence shown in SEQ ID NO:2.

68. The method of claim 58, wherein the nucleic acid encoding B7-2 comprises the nucleic sequence shown in SEQ ID NO:1.

69. The method of claim 60, wherein B7-2 comprises the amino acid sequence shown in SEQ ID NO:2.

70. The method of claim 60, wherein the nucleic acid encoding a B7-2 molecule comprises the nucleic sequence shown in SEQ ID NO:1.

71. The method of claim 62, wherein B7-2 comprises the amino acid sequence shown in SEQ ID NO:2.

72. The method of claim 62, wherein the nucleic acid encoding B7-2 comprises the nucleic sequence shown in SEQ ID NO:1.

73. A method of modifying a tumor cell to express a B7-2 molecule comprising, transfecting a tumor cell with a nucleic acid molecule encoding a B7-2 molecule such that B7-2 is expressed by the tumor cell.

74. The method of claim 73 wherein tumor cell is modified by transfection with a nucleic acid molecule comprising the nucleotide sequence shown in SEQ ID NO:1.

75. The method of claim 73, wherein the tumor cell is modified *in vitro* or *ex vivo*.

76. The method of claim 73, wherein the tumor cell is modified *in vivo*.

77. The method of claim 73, wherein the tumor cell is further transfected with at least one nucleic acid molecule encoding a B7 protein.

78. The method of claim 73 wherein the tumor cells are further transfected with at least one nucleic acid molecule encoding at least one MHC class II αchain protein and at least one MHC class II β chain protein in a form suitable for expression of the MHC class II αchain protein(s) and the MHC class II β chain protein(s).

79. The method of claim 73 wherein the tumor cells are further transfected with at least one nucleic acid molecule encoding at least one MHC class I α chain protein in a form suitable for expression of the MHC class I protein(s).

80. The method of claim 73 wherein the tumor cells are further transfected with a nucleic acid molecule encoding a β-2 microglobulin protein in a form suitable for expression of the β-2 microglobulin protein.

81. The method of claim 73 wherein expression of an MHC class II associated protein, the invariant chain, is inhibited in the tumor cells.

82. The method of claim 81 wherein expression of the invariant chain is inhibited in the tumor cells by transfection of the tumor cell with a nucleic acid which is antisense to a regulatory or a coding region of the invariant chain gene.

83. The method of claim 73 wherein the tumor is a sarcoma.

84. The method of claim 73 wherein the tumor is a lymphoma.

85. The method of claim 73 wherein the tumor is selected from a group consisting of a melanoma, a neuroblastoma, a leukemia and a carcinoma.

86. The method of claim 73, wherein the B7-2 molecule comprises the amino acid sequence shown in SEQ ID NO:2.

87. A method of increasing the immunogenecity of a tumor cell comprising, modifying the tumor cell to express a B7-2 T cell costimulatory molecule such that the immunogenecity of the tumor cell is increased.